

HAJEK, ZDENEK

Czechoslovakia

CA:47:11760

"Determination of the drop and solidification point of fatty acids and fats."

Chemie (Prague) 8, 204-6 (1952)

Hajek, Z.

/ Rancidity of fat and its laboratory estimation. Z. Hajek.
Průmysl Potravin 4, 437-40(1953).—Discussion and Meth-
ods. J. Urbanek.

HAJEK, Z.

The Swift method of controlling the rancidity of fats. p. 456.

PRUMYSL POTRAVIN. Praha. Vol. 6, no. 9, 1955.

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 3, March 1956.

COUNTRY : Czechoslovakia H-20
CATEGORY :
ASA, JOUR. : RZKhim., No. 5 1960, No. 19580
AUTHOR : Hajek, Z.
INST. : Not given
TITLE : Food Dyes in the Light of International Agreements
on the Permissibility of Their Application
ORIG. PUB. : Prumysl Potravin, 10, No 6, 301-302 (1959)
ABSTRACT : No abstract.

CAED: 1/1

383

HAJTEL, A.

Noxious action of gaseous ingredients in compressed air. p. 401.
Vol 9, no. 12, Dec. 1955. OCHRONA PRACY: BEZPIECZENSTWO I HIGIENA PRACY. Warsaw,
Poland.

So: Eastern European Accession. Vol 5, no. 4, April 1956

HAJEL, Alojzy; WICZYK, Stanislaw; KOPECIOWA, Olga

Locomotor organ in divers and its relation to decompression sickness. Bull. Inst. Marine Trop. M. Gdansk 7:224-232 1956.

1. Z Panst. Inst. Med. Mors. i Trop. w Gdansku.

(JOINTS, in various diseases,
decompression sickness (Pol))
(DECOMPRESSION SICKNESS, pathology,
joints (Pol))

HAJEL, A.

"A device preventing damages to divers working in classical diving bells."

p. 5 (Ochrona Pracy; Bezpieczenstwo I Higiena Pracy) Vol. 10, no. 3,
Mar. 1956
Warsaw, Poland

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

HAJEL, A.

HAJEL, A. Diving hazards in retention reservoirs with different water levels.
p. 3. Vol. 10, no. 12, Dec. 1956, OCHRONA PRACY: BEZPIECZENSTWO I HIGIENA PRACY.
Warszawa, Poland.

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4--April 1957

HAJEL, A.

Remarks on diving in light diving apparatus.

p. 12 (Ochrona Pracy; Bezpieczenstwo I Higiena Pracy) Vol. 12, No. 10, Oct. 1957
Warszawa, Poland

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7 $\frac{1}{2}$ NO. 1, JAN. 1958

TARÁNYI, E.; BAJER, Gy.; URBAN, I.

On the healing of fractures in animals with hypo- and hyperthyroidism. Acta chir. acad. sci. Hung. 6 no.4:435-445 '65.

1. Institut für Anatomie, Histologie und Embryologie (Direktor: Prof. Dr. I. Krompecher) der Medizinischen Universität, Debrecen.
Submitted March 12, 1965.

HAJIC, J.

"One-channel radio appearance for the 27 Mc/range."

p. 222 (Letecky Modelar) Vol. 8, no. 10, Oct. 1957
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

HAJIC, J., inz.

The URS universal control system. Tech praca 17 no.3:171-173
Mr '65.

1. Research and Development Institute of the Zavody prumyslove
automatizace National Enterprise, Prague.

S/194/62/000/012/020/101
D201/D308

AUTHORS: Hajič, Jan and Tománek, Evžen

TITLE: A contactless servodrive with asynchronous motor

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika,
no. 12, 1962, 49, abstract 12-2-98 a (Czech. pat.,
cl. 21c, 62/20, no. 95716, Jun. 15, 1960)

TEXT: The patented servomechanism is distinguished by contactless devices used as synchronizing elements and by an asynchronous 3-phase motor used as the power stage. The synchronizing system consists of a tacho-generator, Selsyn transmission, discriminator, and four electronic switches (triggers). The secondary selsyn and the tachogenerator are mechanically coupled to the asynchronous motor. The selsyn bridge circuit becomes unbalanced with the rotation of the rotor of primary selsyn and a signal is applied to the discriminator. The output signals of the latter open three triggers which control the motor supply. Depending on the phase difference, either one or the other group of triggers operates, which results either

Card 1/2

A contactless servodrive ...

S/194/62/000/012/020/101
D201/D308

in a right- or left-hand rotation of the motor. The motor rotates until the selsyns are again in phase. The feedback is applied through the tachogenerator. /- Abstracter's note: Complete translation. /

Card 2/2

HAJICEK, H.

8

16

9178* Microcalorimetry and Possibilities of Its Application in the Study of Metals and Alloys. (In Czech.) H. Hajicek. *Hutnické Listy*, v. 6, Mar. 1951, p. 111-119.

Although the main field of application of microcalorimetry appears to be the study of radioactive materials, of thermal phenomena of various chemical and physicochemical reactions, and in physiology and biology, it is also shown to be useful in the study of metals and alloys. Three examples illustrate this thesis 31 ref.

AS 6-51.4 METALLURGICAL LITERATURE CLASSIFICATION

H A S L O C K 6

S

19

ON SIMPLE BINARY ALLOYS CONTAINING A EUTECTIC. O. Hajloek. (Izvestiya
Listy, 1948, vol. 3, Sept., pp. 265-269). (In Czech). Binary alloys are
studied and the author develops an equation which defines the reaction
between the composition of the eutectic, its melting temperature and the
melting temperatures of the individual components of the binary alloy. This
relation for two metals a and b is given by:

$$\frac{\frac{T_2}{a} - T_c}{T_a} \div \frac{T_b - T_c}{T_b} = b \div a$$

where T_a , T_b , T_e are the absolute melting temperature of the individual metals a and b and of the eutectic, and r is a function exponent which develops in a geometrical series with five terms $\frac{1}{4}$, 1, 2, 4, and the value of r depends on the crystal lattices of the components of the eutectic. The values obtained with this equation are almost identical with those determined experimentally. E.G.

ASM.SLA METALLURGICAL LITERATURE CLASSIFICATION

W
A
NATION, OTA

"Pouziti kysliku ve vyrobe zeleza a oceli. (Vyd. 1.) Praha, Prumyslove
vydavatelstvi. 1951. 131 p. (Kniznice hutnickeho prumyslu, sv. 2) (The use of
oxygen in the production of iron and steel. Illus., bibl., subject index)

SO: East European, L. C. Vol. 2, No. 12, Dec. 1953

Method of Using Oxygen in the Blast-Furnace. O. Hajloek. (Motnik, Prague), 1961, 1, No. 6, 104-106). (In Czech). Early attempts to use oxygen in blast-furnace practice were uneconomic owing to inadequacy of equipment and high cost of oxygen. These limitations are being overcome, and a saving of 30% in the cost of blast-furnace operation is expected in spite of the cost of oxygen and the necessary CO₂ diluent. The advantages to be gained are explained.

S HAJČEK, E.

Modern Development Tendencies in Pig Iron Production. O. Hájček. (Eutrik, (Pravda), 1961, 1, No. 6, 122-123). (In Czech). Methods of increasing the efficiency of extracting iron from iron ores are examined. A higher rate of heat input into the blast-furnace is the chief requirement. To increase the blast temperature would be uneconomical, but an increase in the available oxygen by increasing the blast pressure and by the addition of oxygen is possible. Experiments with different pressures of air and blast-furnace gas showed that simultaneous increase in gas pressure from 0.2 to 1.5 atm. and air blast pressure from 1 to 2.5 atm. facilitated an increase of 20% in the hourly rate of iron output and a coke saving of 10%. On the basis of large-scale experiments carried out in Russia, it can be said that a 30% reduction in the coke consumption is attainable. P.F.

5 H H U I C H E K , S

Some Possibilities of Increasing Output and Improving Blast-Furnace Performance. O. Hájíček. (Hutník, (Prague), 1951, 1, No. 7-8, 153-154). (In Czech). Lining of blast-furnace hearths with carbon blocks, the use of oxygen-enriched blast, and the scope of increasing gas and air pressures in the blast-furnace are discussed. A blast-furnace at Dortmund had finished a successful 15-year campaign in 1942, having produced 3.7 million tons of pig iron with a carbon hearth. Twenty-eight break-outs had, however, occurred. Carbon linings in Europe are said to be inferior to those in the U.S. A. The thermal expansion of American firebrick lining is about half that of most European, which implies a more nearly linear expansion and comparatively tight-fitting joints. European specifications, by contrast, demand small additional shrinkage, which is not the same as low thermal expansion from the point of view of tight-fitting bricks. Of 77 blast-furnaces in the U.S. A. equipped with carbon hearths up to the middle of 1950, 17 are no longer in operation, but not because of poor performance. The use of increased blast pressures and of oxygen in pig-iron production is also critically examined. —P.F.

HAJICEK

220-P. Microcalorimetry and Possibilities of Its Application in the Study of Metals and Alloys. (In Czech.) O. Hájíček. *Hutnické Listy*, v. 8, Mar. 1981, p. 111-119.

Although the main field of application of microcalorimetry appears to be the study of radioactive materials, of thermal phenomena of various chemical and physicochemical reactions, and in physiology and biology, it is also shown to be useful in the study of metals and alloys 31 ref. (P12, M23).

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

COMMON ELEMENTS

COMMON TABLETS NOTE

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

5TH AND 6TH ORDERS

7TH AND 8TH ORDERS

9TH AND 10TH ORDERS

11TH AND 12TH ORDERS

13TH AND 14TH ORDERS

15TH AND 16TH ORDERS

17TH AND 18TH ORDERS

19TH AND 20TH ORDERS

21ST AND 22ND ORDERS

23RD AND 24TH ORDERS

25TH AND 26TH ORDERS

27TH AND 28TH ORDERS

29TH AND 30TH ORDERS

31ST AND 32ND ORDERS

33RD AND 34TH ORDERS

35TH AND 36TH ORDERS

37TH AND 38TH ORDERS

39TH AND 40TH ORDERS

41ST AND 42ND ORDERS

43RD AND 44TH ORDERS

45TH AND 46TH ORDERS

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79TH AND 80TH ORDERS

81ST AND 82ND ORDERS

83RD AND 84TH ORDERS

85TH AND 86TH ORDERS

87TH AND 88TH ORDERS

89TH AND 90TH ORDERS

91ST AND 92ND ORDERS

93RD AND 94TH ORDERS

95TH AND 96TH ORDERS

97TH AND 98TH ORDERS

99TH AND 100TH ORDERS

^W
HAJICEK, OTTO.

Obsluha vysoke pece; prirucka k odbornemu skoleni v hutnictvi. [Vyd. 1.]
Praha, Prace; Vydavatelstvo ROH, 1952. 209 p. (Technicke prirucky Prace, sv.
134) [Blast Furnace operation; a manual for specialized study in metallurgy.
illus., index]

SO: Monthly List of East European Accessions, Vol.3, No.3, Library of Congress, March 1954,
Uncl.

8 10 11
HANEČEK, O.

Miscellaneous

Use of Radioactive Elements in Research, Particularly in
Research on Metallurgical Materials. O. Haneček. *Hutnická
Listy*, 1952, 7, 6, 293-298; 7, 351-356. [In Czech] The

production and properties of radioactive isotopes suitable for
metallurgical research purposes are described, and some
applications are discussed. p. 7

HAJICEK, O.

"Economy of Coke Consumption in Blast Furnaces by Regulation of Air" p. 30,
(HUTNIK, Vol. 3, no. 2, Feb 1953, Praha, Czechoslovakia).

SO: Monthly List of East European Accessions, LC, Vol. 2, No. 11, Nov. 1953, Uncl.

HAJICEK, O.

"The Role and Importance of Manganese in the Metallurgy" p. 90, (HUTNIK, Vol. 3, no. 4, Apr. 1953, Praha, Czechoslovakia).

SO: Monthly List of East European Accessions, LC, Vol. 2, No. 11, Nov. 1953, Uncl.

HAJICEK, O.

"The Preparation, Following, and Control, of a Graphic Ruler of Operations in Open-Hearth Furnaces; Experiences of the Petrovskii Plant in the Soviet Union" p. 92, (HUTNIK, Vol. 3, no. 4, Apr. 1953, Praha, Czechoslovakia).

SO: Monthly List of East European Accessions, LC, Vol. 2, No. 11, Nov. 1953, Uncl.

HASJČEK, O.

Journal of the Iron and Steel Institute
Vol. 176 Part 3
Mar. 1954
Blast-Furnace Practice and Production of
Pig Iron

Coke Saving in the Blast-Furnace by Charge Preparation.
O. Hašiček. (*Hutník* (Prague), 1953, 3, (9), 206-209). [In
Czech]. Major advances leading to a reduced coke rate are
surveyed. The need for high iron content in charges is em-
phasized as 1% less iron in the burden leads to a 3% decrease
in blast-furnace efficiency according to Soviet data. The
principles and advantages of enriching lean iron ores in
sloping rotary furnaces are discussed, and methods of pre-
paring the charge and of charging blast-furnaces for optimum
performance are described. P. 1.

HAJICEK, O.

Economic evaluation of production methods in powder metallurgy. p. 438

TECHNICKA PRACE (Slovenske nakladatelstvo technickej literatury)

Vol. 8, No. 10, Oct. 1956

Bratislava, Czechoslovakia

SOURCE: East European List (EEAL) Library of
Congress, Vol. 6, No. 1, January 1957

HAJICEK, O.

HAJICEK, O. How Czechoslovak Academy of Sciences will assist the metallurgic industry. p. 41.

Vol. 7, no. 2, Feb. 1957

HUTNIK

TECHNOLOGY

Czechoslovakia

So: East European Accession, Vol. 6, No. 5, May 1957

HAJICEK, V.

Allergic diseases and their relation to gastrointestinal tract. Sborn.
pathophysiol. trav. vyz. 5 no.3:89-93 Dec 51. (GLML 21:4)

1. Of the Internal Clinic (Head—Prof. P. Lukl, M.D.) in Hradec Kralove.
2. Of the Allergy Center (Head—V. Hajicek, M.D.) in Hradec Kralove.

EXCERPTA MEDICA Sec 15 Vol. 11/9 Chest Sept 58

, 6*)

1866. BRONCHOSCOPY IN BRONCHIAL ASTHMA - Bronchoskopie při průduškovém astmatu - Hájiček V. and Štefl M. Klin. Nemocn. Ušních Krcních a Nosních MU, I. Interní Klin. MU, Brno - ČSL. OTOLARYNG. 1957, 6/4 (206-211) Tables 2

In the otorhinolaryngological and internal medical clinics in Brno, the authors have examined by bronchoscopy, and treated, 30 patients. Bronchoscopy was a valuable and important aid in diagnosis and therapy in bronchial asthma. Bronchoscopic findings go parallel with clinical findings and are characterized by a weeping of the mucous membrane, a livid colouration and a narrowing of the bronchial lumen mainly in the region of its branching. Used in therapy, it permits lavage with warm physiological solution, with a slight concentration of adrenaline, into the respiratory passages in all chronic asthmatics; thus decreasing their breathlessness. One case of false bronchial asthma is described, produced by inhalation of a small bone, and one case where an asthmatic attack was observed by bronchoscopy.

(XI, 15)

HAJICEK, V.; CERMAKOVA, E.; HAJICKOVA, V.; JEZKOVA, D.

Chondro-osteoplastic tracheopathy in the etiopathogenesis of
bronchial asthma. Cas.lek.cesk.99 no.48:1508-1511 25 N '60.

1. Alergologicke oddeleni KUNZ v Brne, prednosta MUDr. V.Hajicek
C. Sc.

(ASTHMA etiol)

(TRACHEA dis)

UHLIR, M.; SEDLACEK, V.; HAJICKOVA, M.

Immunoprevention and immunotherapy of puerperal mastitis.
Cesk. gyn. 28 no.3:188-191 Ap '63.

1. I gyn.-por. klin. lek. fak. UJEP v Brne, prednosta prof.
dr. L. Havlasek - KUNZ v Brne - Mikrobiol. ustav v Brne,
prednosta prof. dr. V. Tomasek.
(MASTITIS) (PUERPERAL DISORDERS)
(STAPH INFECTIONS) (IMMUNE SERUMS)

HAJICEK, V.; CERMAKOVA, E.; HAJICKOVA, V.; JEZKOVA, D.

Chondro-osteoplastic tracheopathy in the etiopathogenesis of
bronchial asthma. Cas.lek.cesk.99 no.48:1508-1511 25 N '60.

1. Alergologicke oddeleni KUNZ v Brne, prednosta MUDr. V.Hajicek
C. Sc.

(ASTHMA etiol)
(TRACHEA dis)

HAJICKOVA, V.

Asthma epidemie. Cas.lek.cesk. 99 no.48:1511-1514 25 N '60.

1. Autovakcinacni oddeleni Mikrobiologickeho ustavu fakultni
nemocnice, Brno.
(ASTHMA epidemiol)

SIKL, Oldrich; SCHREIBER, Bedrich; HAJICKOVA, Vera

Intradermal reaction to placental antigen in nephropathy in pregnancy.
Gesk. gyn. 26 [40] no.6:437-442 JI '61.

1. I gyn. por. klin. UJEvP v Brne, prednosta prof. dr. L.Havlassek
Mikrobiol. ustav fak. nem. v Brne, zast.prednosta dr. L.Jandasek.
(PREGNANCY TOXEMIAS immunol.) (PLACENTAL immunol.)

CZECHOSLOVAKIA UDC 616.24-003.65(:674.8)-057(677.022)

NAVRATIL, Miroslav; HAJICKOVA, Vera; BRUCKNER, Jaroslav; SEDIVEC, Jiri; Institute of Work Hygiene and of Occupational Diseases (Ustav Hygieny Prace a Chorob z Povolani), Prague, Director (Reditel) Dr J. TEISINGER; Okresni Station of Hygiene and Epidemiology (Hygienicko-Epidemiologicka Stanice), Liberec, Director (Reditel) Dr J. MARECEK; Department of Occupational Diseases, Okresni Institute of National Health (Odd. Chorob z Povolania OUNZ), Liberec, Head (Vedouci) Dr J. BRUCKNER.

"Problem of Byssinosis in Cotton Mill Workers."

Prague, Pracovni Lekarstvi, Vol 18, No 6 - 7, Aug 66, pp 247-253

Abstract [Authors' English summary modified]: Employees of 2 cotton mills who were exposed to cotton dust for more than 5 years were examined. Byssinosis was found only exceptionally; in one mill chronic bronchitis was found in 29.5% of the employees, in the other in 23.5%. The usual bacteria and mycotic flora were found in the patients. Skin tests with allergens were made; some dust reactions were observed. 6 Figures, 3 Tables, 14 Western, 7 Czech, 1 Russian reference. (Manuscript received 20 Dec 65).

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- 19 -

HAJKO, V.

"Theoretical Study of Properties of the Mirror Galvanometer in Regard to its Application in Polarography." p. 52.

(Matematicko-Fyzikalny Sbornik. Vol. 2, no. 1/2, 1952. Bratislava).

East European Vol. 3, No. 6

SO: Monthly List of ~~Accessions~~ Accessions,/Library of Congress, June ⁴195~~0~~, Uncl.

HAJKO, V.

Application of Lagrange's equations for solving electric circuits. p. 63
(Strojnoelektrotechnický Časopis, Bratislava. Vol. 3, no. 1, 1952)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 6,
June 1955, Uncl.

HAJKO, V.

Methods of calculating demagnetization coefficients of rectangular rods, p. 211
(Strojnoelektrotechnický časopis. Bratislava, Vol 4, No. 2, 1953)

SO: Monthly list of East European Accessions, (EEAL), LC Vol 4, No. 6, June 1955, Uncl

HAJKO, V.

Hysteresis of the demagnetization factor. p. 435

Vol. 5, no. 4, July 1955
CESKOSLOVENSKY CASOPIS PRO FYSIKU
Praha, czechoslovakia

So: Eastern European Accession Vol. 5, No. 4, 1956

CZECHOSLOVAKIA/Magnetism - Diamagnetism. Paramagnetism.

F.

Abs Jour : Ref Zhur -- Fizika, No 7, 1959, 15566

Author : Hajko, Vladimir; Daniel-Szabo JuraJ

Inst : -

Title : On the Character of Hysteresis of the Demagnetizing
Factor

Orig Pub : Ceskosl. casop. fys., 1956, No 3, 352-354

Abstract : No abstract.

Card 1/1

HAJKO, V.

HAJKO, V. A conference in Moscow on the physics of magnetic phenomena.
p. 261. Vol. 6, no. 4, 1956, MATEMATICKO-FYZIKALNY CASOPIS.
Bratislava, Czechoslovakia.

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4--April 1957

HAJKO, V.; DANIEL-SZABO J.

Study on the magnetic reversal process of ferromagnetic rods. p. 16.
(Matematicko-Fyzikalny Casopis, Vol 7, No. 1, 1957, Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol 6, No. 8, Aug 1957. U_ncl.

HAJKO, V.

Two remarks on demagnetization factors of ferromagnetic rods. p. 46.
(Matematicko-Fyzikalny Casopis, Vol. 7, No. 1, 1957, Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol 6, No. 8, Aug 1957. Uncl.

CZECHOSLOVAKIA/Magnetism. - Ferromagnetism.

F

Abs Jour : Ref Zhur Fizika, No 12, 1959, 27576

Author : Hajko, Vladimir; Daniel-Szabo, Juraj

Inst : Technical Institute, Kasice, Czechoslovakia

Title : On the Character of the Hysteresis of the Demagnetizing Factor

Orig Pub : Chekhosl. fiz. zh., 1958, 8, No 6, 685-688

Abstract : The character of hysteresis of the demagnetizing factor is explained on the basis of the distribution of the magnetization along a rod upon going through the hysteresis loop.

Card 1/1

CZECH/37-59-1-6/26

AUTHORS: Vladimír Hajko, Juraj Daniel-Szabó

TITLE: The Influence of an Alternating Magnetic Field on the Remanent Magnetism of Soft Materials

PERIODICAL: Československý Časopis Pro Fysiku, 1959, Nr 1, pp 38-46

ABSTRACT: Starceva and Šur (Ref 1) have shown that a decreasing alternating magnetic field does not always have a demagnetizing effect. The effects have been interpreted by Kondorskij (Ref 2). We have studied similar phenomena in a ring-shaped sample which has been brought into its remanent state by processes shown in Fig 2a or 2b. The ring consisted either of layers of transformer iron or of a compact soft ferrite (Fe_2O_3 , 5%; MnO , 24%; ZnO , 24%). Some open samples of various soft materials were also used. Fig 3 shows the results for a ring made of transformer iron. It shows the dependence of the relative remanent magnetisation on the maximum amplitude of the alternating magnetic field (50 c/sec). The various curves refer to different magnetising fields used for the original magnetisation of the sample. Fig 4 shows similar curves for a ferrite ring. Kondorskij's interpretation, using the inhomogeneity of the

Card
1/2

HAJKO, V.

"Definition of coercive force."

ELEKTROTECHNICKY CASOPIS, Bratislava, Czechoslovakia, Vol. 10, no. 1, 1959

Monthly List of East European Accessions Index (EEAI), LC, Vol. 8, no. 8,
August 1959

Unclassified

KAVECANSKY, Vincent; HAJKO, Vladimir; DANIEL-SZABO, Juraj

Effect of the gradual magnetic reversal on the field structure
of polycrystalline Fe-Si sheets. Mat fyz cas SAV 13 no.1:
64-71 '63.

1. Katedra fyziky, Vysoka skola technicka, Kosice, Komenskeho 40.

HAJKO, V.

Course of the reptation effect. Chekhosl fiz zhurnal
14 no. 3:203-2105 '64.

1. Faculty of Physics of the Safarik University, Kosice.

L 5109-66

ACC NR: AP6000248

SOURCE CODE: CZ/0608/65/059/002/0222/001

AUTHOR: Nevoral, Vladislav; Hajkova, Gabriela

ORG: Research Institute for Physiatry, Balneology and Climatology, Mariánské Lázně
(Výzkumný ústav pro fyziatrii, balneologii a klimatologii)

TITLE: Determination of trace amounts of sodium in potassium salts

SOURCE: Chemické listy, v. 59, no. 2, 1965, 222-224

TOPIC TAGS: sodium, potassium compound, trace analysis, photometry

ABSTRACT: The method is based on flame photometry, after the K is separated using tetraphenyl boric acid on an ion exchanger. Modification using organic solvents in the elution solution to increase the column capacity is described. Orig. art. has: 2 figures, 2 tables. [JPRS]

SUB CODE: IC, GC / SUBM DATE: 27Apr64 / ORIG REF: 001 / OTH REF: 005
SOV REF: 001

Card 1/1

MACEK, Milan; MICHL, Jiri; HOSTOMSKA, Lidmila; KUCEROVA, Marie; BRDICKA, Radim; CERNY, Milos. Techn. spoluprace:HAJKOVA,H.; DOCHANOVA, M.

Shereshevskii - Turner syndrome in the light of new clinical and cytological data. Acta Univ. Carol. [med.] (Praha) 10 no.1:87-105 '64

- I. Ustav vyzkumu vyvoje ditete fakulty, detskeho lekarstvi University Karlovy v Praze (reditel: prof. MUDr. J. Houstek, Dr Sc); Ustav ser a ockovacich latek (reditel: MUDr. J.Johanovsky, CSc.);
- II. detska klinika fakulty detskeho lekarstvi University Karlovy v Praze (prednosta: prof. MUDr. J. Houstek, Dr Sc) a Ustav obecne biologie fakulty vseobecneho lekarstvi University Karlovy v Praze (reditel: prof. MUDr. B.Sekla, Dr Sc).

HOUSKOVA, Jirina, inz.; HAJKOVA, Helena

Physical properties of some loose materials. Prum potravin
16 no.4:205 Ap '65.

1. Central Research Institute of the Food Industry, Prague.
Submitted September 25, 1964.

HÁJKOVÁ, I.; BRAZDOVÁ, V.

CNSP

Pharmacognostic department, Pharmaceutical Faculty, Charles University,
(Katedra farmakognosic Farmaceutické fakulty UK), Bratislava
Bratislava, Farmaceutický Obzor, No 3, 105-110.

"Contribution to the Evaluation of Glycyrrhiza Glabra L. (Liquorice)

(2)

1
CZECHOSLOVANIA

HAJKOVA, I; BRAZDOVA, V.

Chair of Pharmacognosis of the Pharmaceutical Faculty UK
(Katedra farmakognosis farmaceuticke fakulty UK),
Bratislava (for both)

Bratislava, Farmaceuticky obzor, No 8, 1963, pp 343-346

"Content Determination in Flos and Fructus Sambuci During
the Period of Vegetation."

HAIKOVA, Irena, RNDr., PhMr. (Bratislava, Bakuninova 12); SOVOVA, Marie,
KOSOVA, Vera

Medicinal plants of Pouzdrany Hills. Acta pharmac 6:43-61 '62

1. Katheder fur Pharmakognosie der Pharmazeutischen Fakultat, Bratislava (for Hajkova).
2. Katheder fur pharmazeutische Botanik der Pharmazeutischen Fakultat, Bratislava (for Sovova).
3. Forschungsinstitut fur Futterstoffe der Tschechoslowakischen Akademie der landwirtschaftlichen Wissenschaften, Pohorelice (for Kosova).

89268
Z/023/60/000/004/004/004
A224/A026

9,9110 (1041,1046,1060)

AUTHORS: Hájková, Jaroslava; Jiskra, Miroslav

TITLE: On the Occurrence of the Sporadic E-Region Over Europe

PERIODICAL: Studia Geophysica et Geodaetica, 1960, No. 4, pp. 409 - 415

TEXT: The paper deals with the evaluation of the statistical material on the occurrence of the sporadic E-region over Central Europe. The material was collected between January 1, 1955, and December 31, 1958, by tracing the propagation of short and ultrashort waves (30 - 100 Mc), at distances of 500 to 2,000 km, at the Ionospheric Station of the Geophysical Institute of the Czechoslovak Academy of Sciences in Panská Ves (50°31.8'N-14°34.0'E). The radio broadcast was received by a commercial all-band set, and the TV broadcast by the "Leningrad T-2" set. The observation of the reception conditions was conducted daily by M. Jiskra from 0700 to 1900 hours, local time, and up to 2300 hours, Central European time, under favorable reception conditions. Remarkable is an unusual high E-region activity in the first half of August 1958, especially on the 6th, 8th, 9th, and 10th, although the Perseid shower was not very active as compared with past years, according to the Astronomical Institute of the Czechoslovak Academy of Sciences at Ondřejov.

Card 1/2

89268

✓

On the Occurrence of the Sporadic E-Region Over Europe

Z/023/60/000/004/004/004
A224/A026

The maximum occurrence was observed in June in all years. The daily peak activity was observed between 0800 - 1100 and 1500 - 2000 hours. No correlation between the occurrence of the sporadic E-region and the storm activity was established. The paper was reviewed by P. Beckmann. There are 7 figures and 7 references: 3 Czech, 3 English, and 1 German.

ASSOCIATION: Geophysical Institute of the Czechoslovak Academy of Sciences, Boční II, Praha 4 - Spořilov

SUBMITTED: November 21, 1959

Card 2/2

HAJKOVA, MARIA.

Mucniky. 4.rozsirene vyd.

Bratislava, Czechoslovakia. Vydavatelstvo Roh, 1958. 322,(1) p.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no. 2, Feb. 1960.

Uncl.

HAJKOVA, I.; BUCKOVA, H.; GESKOVA, E.; NATHEROVA L.

Study of tannins in some species of the genus Geranium. Cesk.
farm. 13 no.4:183-185 My¹⁶⁴

1. Katedra farmakognosie farmaceuticke fakulty UK [University
Komenskeho], Bratislava.

FRANC, Jaroslav, inz.; HAJKOVA, Marie; JEHLICKA, Vladimír

Determination of aromatic substances separated by paper chromatography and thin-layer chromatography. Chem zvesti 17 no.8:542-549 '63.

1. Vyzkumny ustav organickych syntez, Pardubice -- Rybitvi.

BORSKY, I.; HAJZOKOVA, M.; HUBAC, M.

Changes of certain blood values in workers of the cable car system
in Tatranska Lomnica. Pracovní lek. 12 no. 8: 426-430 0'60.

1. Ustav hygieny prace a chorob z povolania v Bratislave, riaditel
MUDr. I. Klucik.

(BLOOD)

(ALTITUDE)

KARFIK, V., Doc. dr.; HÁJKOVÁ, V., dr.

A.V.Vishnevskii's blocks in the treatment of burn shock. Cas.lek.
cesk. 91 no.35:1002-1005 29 Aug 52.

1. Ze Stat. ustavu pro plastickou chirurgii v Brne. Prednosta:
doc. MUDr V.Karfik.

(ANESTHESIA, REGIONAL, in various diseases,
nerve block in shock in burns)

(BURNS, complications,
shock, ther., nerve block)

(SHOCK, etiology and pathogenesis,
burns, ther., nerve block)

741181077 2
POLAKOVA, Z.; POPELKA, S.; TRUHLAR, P.; HARTOVA, E.; NECHVATALOVA, L.;
PAUROVA, V.; ZAMOSTNA, M.; KRALIK, V.; LENOC, P.; HAJKOVA, Z.;
HNEVKOVSKY, O.; KADLECOVA, L.

Physical therapy in Bechterew's disease. II. passive exercises.
Fysiat. vest. Praha 32 no.3:72-86 Apr 54.

1. Z II. kliniky pro ortopedii a detskou chirurgii Karlovy university
v Praze, prednosta prof. MUDr. O.Hnevkovsky. Z vyskumneho ustavu
chorob reumatickych v Praze, reditel prof. MUDr Fr.Lenoch. Z
fysiatrickeho a balneologickeho ustavu Karlovy university v Praze,
prednosta prof. MUDr Fr.Lenoch.

(SPONDYLITIS, ANCYLOSING, therapy
exercise ther.)
(EXERCISE THERAPY
ancylosing spondylitis)

HAJKOVA, Zdenka, as., MUDr; HAJEK, Stanislav, as., MUDr

Effect of chrysothiotherapy on hemoglobin resistance. Fysiat.vest.,
Praha 33 no.3:101-106 June 55.

1. Fysiatrický a balneologický ústav Karlovy university v Praze,
prednosta prof. MUDr Frantisek Lenocho. Ustav pro soudni lekarstvi
lekarske fakulty hygienicke Karlovy university v Praze, prednosta
prof. MUDr Edvard Knobloch.

(HEMOGLOBIN

resist., eff. of gold ther.)

(GOLD, effects

on hemoglobin resist.)

EXCERPTA MEDICA Sec.9 Vol.11/10 Surgery Oct 57

5029. (1038) HÁJKOVÁ Z. Fysiat. a Balneol. Ústav, Karlovy Univ., Praha.
*Spondyl~~osis~~ hyperostotica. Spondylosis hyperostotica FYSIAT.
VESTN. (Praha) 1956, 34/4 (206-213) Illus. 4

Hyperostotic spondylosis is a degenerative rheumatic disease of the spine in which the osteoplastic potency of the subperiosteal mesenchyme is considerably developed. This disease is often thought to be ankylopoietic spondylarthritis (a.s.) from which,

5029

CONT.

however, it can be distinguished. Hyperostotic spondylosis occurs in older subjects, whereas a.s. occurs in younger ones. The spinal rigidity in the former disease affects especially the thoracic region and is not accompanied by muscular atrophy; in a.s. the spinal rigidity is chiefly located in the lumbar portion, often also the cervical one, and the muscular atrophy is marked. Pain in the spondylotic affection is not, as a rule, as great and the peripheral joints are affected by changes of degeneration, whereas in a.s. the pain is considerable and in 25-70% of the patients the limb joints are affected by inflammation; and furthermore, ankylosis of the intervertebral and costovertebral joints takes place. The ESR is in the first case normal or only slightly raised; in a.s., it is high in 75% of the cases. Differences are to be found between the 2 diseases also from the pathological and X-ray points of view. In hyperostotic spondylosis the ossifications are apparent mainly on lateral views and are seen throughout the entire height of the vertebral body. There is no synostosis of the sacroiliac clefts. In a.s., syndesmophytes are most visible on antero-lateral views and occupy only the lower and upper thirds of the vertebral body adjacent to the intervertebral cleft. In this disease there are also advanced changes at the sacroiliac junction or even ankylosis. With regard to treatment of hyperostotic spondylosis, thermotherapy, X-ray treatment and in severe cases a sparing use of the motor apparatus is recommended.

EXCERPTA MEDICA Sec 6/Vol 13/6 Internal Medicine June 59

3237. ARTERIAL CHANGES IN RHEUMATIC DISEASE - Cévní změny v reumatických chorob - Hájková Z. Fysiat. a Balneol. Úst. Karlovy Univ., Praha - FYSIAT. VESTN. 1958, 36/1 (55-61) Illus. 4

In various types of inflammatory rheumatism rheumatic angitis in various tissues and organs was revealed in which the fibrinoid degeneration affects in particular small arteries and prearterioles and is accompanied by a perivascular accumulation of lymph-, granulo- and histiocytes. Ratschow and others describe Bürger's disease in young individuals as polyangitis rheumatica. Organic and functional disturbances of the blood supply were found in patients suffering from acute rheumatism and progressive polyarthritis. It is due to a greater readiness to vasoconstriction and a greater permeability of the capillaries in the active phase of the disease. Disturbances of the venous circulation are usually also present. In Bürger's disease osteoporosis of the skeleton is caused by an inadequate blood supply as shown by the skiagram of the patient. In one patient suffering from Bechterew's disease (ankylosing spondylitis) hyaline necrosis of the collagenous tissue round the capillaries with poly- and mononuclear infiltration of the skin of the back were found (Kubát). In degenerative disease of the joints the great strain leads to capillary stasis and to changes of the bones. Disturbances of the peripheral circulation in rheumatic affections is one of the symptoms of the disease. (XIX, 6)

LANGER, Ladislav; LHOTKA, Jaroslav; HAJKOVA, Zdenka

Therapeutic results with sympathetic blocks and peri-arterial
sympathectomy in progressive polyarthritis. Cas.lek.cesk. 99
no.43:1368-1372 21 0 '60.

1. II. chirurgicka klinika KU v Praze, prednosta doc. dr. J.Lhotka,
Balneologicky ustav KU v Praze, prednosta prof. dr. Fr. Lenocho.
(ARTHRITIS RHEUMATOID ther)
(ANESTHESIA CONDUCTION)
(SYMPATHECTOMY)

PAZDERKA, V.; HAJKOVA, Z.; KADLCOVA, L.; POLAKOVA, Z.

Round-cell infiltrates in skeletal muscles in progressive polyarthritis. Sborn.lek.62 no.12:365-370 D '60.

1. I. patologicky ustav fakulty vseobecneho lekarstvi University Karlovy, prednosta prof.dr. B.Bednar; Fyziatricky a balneologicky ustav fakulty vseobecneho lekarstvi University Karlovy; Vyskumny ustav chorob revmatickych v Praze, prednosta prof.dr. Fr.Lenoch; I. detska ortopedicka klinika pediatricke fakulty University Karlovy, prednosta prof.dr. O.Hnevkovsky.
(ARTHRITIS RHEUMATOID pathol)
(MUSCLES pathol)

KOLMAN, J.M.; MALKOVA, D.; NEMEC, A.; SMETANA, A.; HAJKOVA, Z.; MINAR, J.

The isolation of the Tahyna virus from the mosquito *Aedes vexans* in southern Moravia. J. hyg. epidem. (Praha) 8 no.3:380-386 '64

1. Institute of Parasitology, Czechoslovak Academy of Sciences, Prague.

LANGER, L.; DOSTAL, C.; HAJKOVA, Z.

Long-term therapeutic results with periarterial sympathectomy
in progressive polyarthrititis. Cas. lek. cesk. 104 no.23:634-636
11 Je'65.

1. II. chirurgická klinika fakulty všeobecného lékařství Karlovy
University v Praze (prednosta: prof. dr. J. Lhotka); Vyzkumny
ustav chorob revmatických v Praze (reditel: prof. dr. F. Lenoč);
a Fyziatrický a balneologický ustav fakulty všeobecného lékařství
Karlovy University v Praze (prednosta: prof. dr. F. Lenoč).

HADJOVA, T.

Axial skin temperature in progressive polyarthritis. Fysiat.
vostn. 43 no.4:202-208 Ag '65.

1. Fysiatricky a balneologicky ustav fakulty vseobecneho
lekarstvi Karlovy University v Praze (prednosta prof. dr.
F. Lenocho, DrSc.).

HAJKOVA, Z.; IANGER, L.

Influence of periarterial sympathectomy on skin temperature in progressive polyarthritis. Fysiat. vestn. 43 no.6:335-340 D ' 65.

1. Fysiatrický a balneologický ústav (prednosta - prof. dr. F. Janoch, DrSc.) a II. chirurgická klinika fakulty všeobecného lékařství Karlovy University v Praze (prednosta: prof. dr. J. Lhotka, DrSc.).

HAIKOVÁ-JANČOVÁ, J.

Wireless Engineer
May 1954
Circuits and Circuit Elements

621.3.018.78

1324

A New General Method for Frequency-Distortion
Correction of a Given Circuit in Light-Current and Instru-
ment Engineering. — M. Haiková-Jančová. (*Frequenz-*
St. t. 1953, Vol. 7, No. 10, pp. 268-269.) The frequency-
dependent function, e.g. the amplification factor, is
expressed as the ratio of power series of functions of the
frequency, and the condition for a minimal frequency
dependence is found.

621.927.7 : 621.914.61
2013. A NEW METHOD OF EVALUATING THE FREQUENCY
CORRECTION, IN PARTICULAR, FOR RECTIFIER-TYPE
INDICATING INSTRUMENTS, 465 HILKOVY-JANČOVÁ.

Slaboproud Obzor, Vol. 17, No. 7, 416-20 (1956). In Czech.

It is shown that in correcting the frequency characteristic of an instrument employing the rectifier it is only necessary to consider the linear correction, since the same conditions apply also for the quadratic correction. Frequency error of the instrument is due to its inherent capacitances and inductances and it can be expressed in terms of a fractional function, where the numerator and the denominator are frequency-dependent polynomials of the order n . The correction consists of equalizing the appropriate constant coefficients of the two polynomials. The procedure is employed to evaluate the correction parameters for a voltmeter and an ammeter; both the instruments employ input transformers with full-wave rectifiers in the secondary. Frequency characteristics of the instruments are plotted for various values of the correction parameters.

R.S. Stachovitz

SLONIM, Dimitrij; MICHL, Jiri; CINNEROVA, Olga; MARES, Ivo; DREVO, Milan;
za spoluprace: STEPANOVE, E.; HAJKOVE, H.; JARKOVE, A.

Certain experiences with the preparation of the inactivated polio-
myelitis vaccine in CSR. II. Preparation of the medium. Cesk.
epidem.mikrob.imun. 9 no.2:111-121 Mr '60.

(POLIOMYELITIS immunol.)
(VACCINES)

HAJKE, O.; RUTICKI, B.

Study of the outlines of selected shells by biometric methods.
Sbor VSR Ostrava 10 no 1/2:133-139 '64.

1. Submitted December 20, 1963.

HAJKR, Oldrich, doc., dr.

Some special cases of the shortest connection between two mine galleries in normal position. Sbor VSB Ostrava 8 no.4:409-420 '62.

HAJMAN, Tibor

Traumatic epiphysiolysis in the knee area. Acta chir.orthop.traum.
cech. 28 no.3:224-226 Je '61.

1. Ortopedicka klinika Univerzity P. J. Safarika v Kosiciach,
predn. doc. dr. M. Haluzicky.

(FEMUR wds. & inj.) (TIBIA wds. & inj.)
(ACCIDENTS INDUSTRIAL)

HAJTASY, Tibor; IZMAY, Ferenc

Questions relating to the theory and testing of the serviceability of textiles. Magyar textil 14 no.9:415-426 S '62.

1. Textilipari Kutató Intézet.

BOJTAR, Pal; Hajmasy, Tibor

Application of mechanical and electronic elements in textile tests. Magy textil 15 no.2:82-92 F '63.

1. Textilipari Kutato Intezet.

Hajmasy, Tibor; Izmay, Ferenc

Correlations between physical characteristics of synthetic fibers and properties of the more important fabrics made of those synthetic fibers. Magy textil 17 no.3:97-105 Mr '65.

1. Research Institute of Textile Industry, Budapest.

HAJMASY, Tibor

Role of instrumental testing in the classification of textiles.
Magy textil 15 no.3:128-130 Mr '63.

1. Textilipari Kutato Intezet.

HAJMASY, Tibor; ~~IMAY~~, Ferenc

Testing durability properties of fabrics. Magy textil 15 no.7:
301-306 JI '63.

1. Textilipari Kutato Intezet.

HAJN, M.

HAJN, M.

Zaklady jemne mechaniky. M. Hajn [a] V. Sulc. [Vyd. 1.] Praha, Statni pedagogicke nakl., 1953. (Ucebni texty vysokych skol) [Fundamentals of the Mechanics of Precision Instruments. Vol. 3. diagrs.]

SO: Monthly List of East European Accessions, Library of Congress, Vol. 3, No. 4, April 1954. Unclassified.

HAJN, M.

"Some problems of high-speed flights," Narodna Krila, Geograd, Vol 6, No 4, July/Aug. 1953, p. 31.

SO: Eastern European Accessions List, Vol 3, No 11, Nov 1954, L.C.

HAIN, T.

New basis for estimating the cost of work on rails. p. 459.
Vol 7, no. 12, Dec. 1955. PRZEGLAD KOLEJOWY. Warsaw, Poland.

So: Eastern European Accession. Vol 5, no. 4, April 1956

Hajn, T.

Hajn, T. A machine for shifting racks laterally on railroads of the German Democratic Republic. p. 97. Vol. 8, no.3, Mar. 1956.
PRZEGŁAD GÓRNICZY. Warszawa, Poland

SOURCE: East European Accessions List (EEAL) LC VOL. 5, No. 6, June 1956

Hajn, T.

A reply concerning the remarks by W. Grobicki, p. 394.
(PRZEGLAD KOLEJOWY. Vol. 8, no. 10, Oct. 1956, Warszawa, Poland)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 12, Dec. 1957.
Uncl.

HAJN, T.

HAJN, T. The mechanization of tracklaying. p. 420

Vol. 8, no. 11, Nov. 1956

PRZEGLAD KOLEJOWY

TECHNOLOGY

Warszawa, Poland

So: East E^Uropean Accession, Vol. 6, no. 2, 1957

HAJN, T.

Principles of the economic location of supply centers for railroad construction. p.209
(PRZEGLAD KOLEJOWY, Vol. 9, No. 6, June 1957, Warsaw, Poland)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 9, Sept. 1957, Uncl.

CSASZAR, Akos; ERDOS, Pal; TURAN, Pal; KARTESZI, Ferenc; FRIED, Ervin;
WIEGANDT, Richard; CSIPSZER, Janos; KALMAR, Laszlo; KONCZ, Karoly;
MAJTHAY, Antal ; BOGDAN, Zoltan; HAJNA, Janos; HETYEI, Gabor;
SURANYI, Janos

Mathematical problems. Mat lapok 14 no.1/2:163-169 '63.

1. "Matematikai Lapok" felelos szerkesztoje (for Turan). 2. "Mate-
matikai Lapok" szerkeszto bizottsagi tagja (for Kalmar),

CSASZAR, Akos; HAJOS, Gyorgy; HEPPES, Aladar; CZACH, Laszlo; HAJNA, Janos;
FRIED, Ervin

Solving mathematical problems. Mat lapok 15 no.1/3:242-246 '64

1. Editor, "Mathematikai Lapok" (for Hajos).

HAJNAL, A.

38. Operating problems and the characteristic values of water power stations situated in lowland watercourses with a slight drop in level — *Szárdási vízerőművek építési és üzemeltetési problémái és jellemzői* — A. Hajnal, (Hungarian Power Economy — *Magyar Energetika* — Vol. 7, 1954, No. 1, pp. 75–84, 10 figs.)

In the design and operation of modern water power stations it is very important that the available water supply, the drop in level and the equipment be most economically exploited. In order to achieve this the characteristic hydrological values of the watercourse and head as well as the characteristic values of the built-in turbines and generators must be known. How the maximum current output may be achieved under given hydrological conditions may be determined by these values. The discharge of the watercourse may be correctly determined by using the discharge diagram with three variables, this, however, would necessitate the modernization of the hydrological service. The determination of the characteristic values of water turbines is shown by a practical example. At any point of the line the optimum equilibrium conditions of the head and turbine can only be realized by the correct tuning of the impeller and guide vanes. This can be achieved with a suitably shaped guiding surface. A practical example is also given concerning the number of units required for given characteristic values of the head.

H/008/61/014/002/001/00:
B122/B227

AUTHOR: Hajnal, Albert

TITLE: Boiling effects in liquid-cooled reactors

PERIODICAL: Energia és Atomtechnika, v. 14, no. 2, 1961, 84-96

TEXT: The author summarizes from recent publications (papers published in Nuclear Power and Nuclear Engineering of 1957-1960 are referred to) the most important research results on boiling effects in a) high-pressure liquid-cooled, and b) boiling reactors; the superheating boiling reactor is excluded from treatment. The statements of the paper refer in the first place to water as a coolant. The purpose of the paper is to resume knowledge available on the effects of boiling in "non"-boiling reactors. In these reactors, boiling should by all means be prevented or reduced to transient or specific operational conditions. Details of the boiling process referring to phenomena in the boundary layer along the heated surface are dealt with first, afterwards, more complicated flow patterns and finally, conditions in the reactor itself. The possible alternatives of reactor operating conditions

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Boiling effects in liquid-cooled...

H/008/61/014/002/001/001
B122/B227

are presented in a figure showing the distinctly delimitable stages of boiling and evaporation of a liquid flowing in a tube of small diameter and confronted with the corresponding reactor-cooling methods. These are: undercooled evaporation (high-pressure water-cooled reactor); nucleate evaporation (boiling-water reactor); transition or frothing flow; annular flow (spray-cooled reactor); non-liquid or water dispersed in steam superheated stage (superheating boiling reactor). Start is made from the dynamics of bubbling. The author finds that experiments so far conducted on the two-component gas-liquid system did not cover entirely the conditions of two-phase systems. Results of investigations on hydraulic losses in the cooling channels of fuel elements and on the corresponding pressure conditions in two-phase systems are afterwards summed up. The first approximation was to consider the steam-water mixture a homogeneous fluid in thermodynamical equilibrium. Martinelli and Nelson attempted at calculating a two-phase flow by considering the pressure-drop components separately. The author reproduces a graph on the relation between mass flow rate ($\text{lb}/\text{ft}^2\text{hr}$) and pressure drop in the cooling channel. Local fluctuations in pressure drop, of sufficient importance to produce boiling, may cause instability, which

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B122/B227

Boiling effects in liquid-cooled...

in boiling-water reactors may cause pulsed operation and heavy damage to fuel elements. The characteristic stages of boiling are usually illustrated by the "boiling" or "evaporation" curve in terms of the heat flux (q/A , where A is the cross section of flow) and the temperature difference. For the relations between burnup heat flux, mass flow rate, undercooling, and pressure of the system W. H. Jens and P. A. Lottes suggested an empirical equation. Two Soviet research workers (not mentioned) conducted experiments under similar conditions and obtained a similar equation. For burnup in the case of zero undercooling, equations of the Westinghouse Atomic Power Division are recommended for water. For other liquids, such as organic compounds, the Rohsenow-Griffith formula of general validity is applicable. A special case is the spray-cooled reactor recently studied in Great Britain and Italy, incompletely developed yet, but promising. There are 9 figures, 1 table, and 4 non-Soviet-bloc references. ✓

ASSOCIATION: Erőmű Tervező Iroda (Power Station Design Office)

Card 3/6

Boiling effects in liquid-cooled...

H/008/61/014/002/001/001
B122/B227

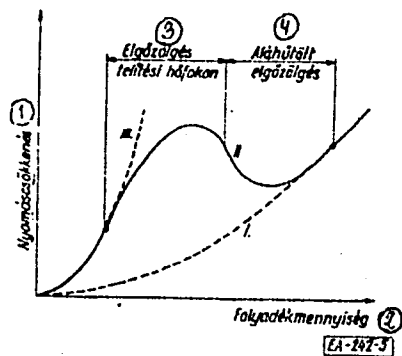
Legend to Fig. 5:

1) pressure drop, 2) mass-flow rate,
3) saturation, 4) undercooling

I - single-phase liquid

II - boiling

III - single phase vapor



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Boiling effects in liquid-cooled...

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Legend to Fig. 6:

- a) heat convection to single-phase fluid,
- c) nucleate boiling
- d) critical flux,
- f) danger of burnup

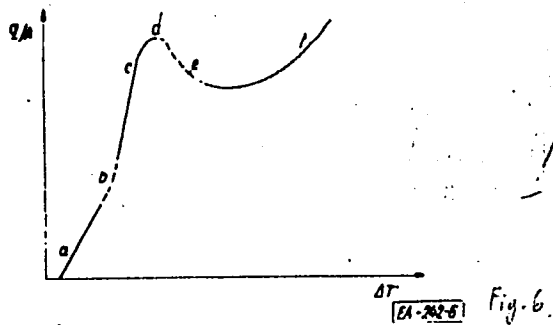


Fig. 6.

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